

Dean Meyer, Group Leader H-1

4/17/59

John Enders, H-1

MODIFICATION OF GAMMA ACTIVE WASTE DISPOSAL SYSTEM BY CMB-DO-GS.

H-1

This morning I was briefed by John Shulte and Francis Fitzgibbon, CMB-DO-GS, at Ten Site on the changes they plan to make in their waste disposal operation.

As mentioned in my memo dated, 1/8/59, describing this operation, the waste material is dried and placed in a 4 inch diameter Dural container. This is done inside a hot cell.

The container is then moved (remotely) to the outside of the cell and positioned in a well where a newly designed cap is inserted in the top of the container. A threaded hole on the top of the cap permits the cap to be attached to a long rod that is used to insert the cap into the container. This cap is fitted with an "O" - ring gasket that is inset on the wall of the cap. The cap also has spring loaded relief valve to release the compressed air as the cap is put in place. Incidentally, the cap is fitted so snugly that considerable force is required to remove it from the container.

After the capping operation the container is put into a Tuballoy cask (remotely). The Tuballoy cask is about 18 inches in diameter and about 30 inches high. The cask walls are 6 inches thick. A trap door is located in the bottom of the cask. The total weight is about 3,000 pounds.

After the container has been placed in the cask the cask is then positioned on the rear end of a truck. The truck bed will have a hole cut in it so the trap door in the cask is positioned directly above this hole. The cask is secured to the truck by chain and taken to the disposal area.

At the disposal area the truck is backed over the disposal hole and positioned so the trap door in the cask is directly over the hole. A short tube is then placed under the truck bed to guide the container into the hole. The container is then dropped into the hole by moving the trap door in the cask.

With the above outlined procedure and equipment, Mr. Shulte observed that the radiation exposure to personnel should be almost zero. The former cask used was adequate for up to 40 Curies. The new cask can handle many times this amount with less exposure to personnel. At present the only question in my mind was whether or not the snug fitted cap in the Dural container was an adequately sealed container for the waste material being handled. It was pointed out by Mr. Shulte that this is a much more durable container than what we currently use for Plutonium contaminated waste.

The first tryout of this new method will be about one or two weeks from now. After the trial run has been made, I hope to arrange to have photographs taken of the operation.

The disposal holes now in use are about 2 feet in diameter. It was suggested by Mr. Shulte and Mr. Fitzgibbon that a 12 inch diameter hole would be more suitable for the new method.

John W. Enders

CC: Mr. Shulte, CMB-DO-GS
Mr. C. Christensen, H-1
H-1 File



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